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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,112	11/30/2001	Sadao Ohsawa	Q67511	8145

7590 02/06/2003  
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EXAMINER

FUNK, STEPHEN R

ART UNIT PAPER NUMBER

2854

DATE MAILED: 02/06/2003

*Handwritten number 7*

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/980,112

Applicant(s)  
Ohsawa et al.

Examiner  
Stephen Funk

Art Unit  
2854



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1)  Responsive to communication(s) filed on \_\_\_\_\_
- 2a)  This action is FINAL.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- 4)  Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-48 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a)  All b)  Some\* c)  None of:
- Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a)  The translation of the foreign language provisional application has been received.
- 15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1)  Notice of References Cited (PTO-892)                      4)  Interview Summary (PTO-413) Paper No(s). \_ \_
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5)  Notice of Informal Patent Application (PTO-152)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4                      6)  Other:

The disclosure is objected to because of the following informalities: The specification contains errors too numerous to mention individually. Example of such errors are on page 1 line 11, page 24 line 25, page 27 lines 3 and 17, page 28 lines 5 and 10, page 34 line 14, page 53 lines 20, 21, and 25, page 54 line 8, page 66 line 6, and page 98 line 8. On page 49 line 12, and thereafter, it is not clear why all of the letters of "WEB" are capitalized. In claim 8 last line "recording" is misspelled. Appropriate correction is required.

The use of the trademarks ISOPAR, SHELLSOL, and TEFLON have been noted in this application on page 81 and page 99 line 10. All letters of the marks should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claims 2, 4, 8, 12, 18, 20, 23 - 26, 28 - 30, and 34 - 48 are objected to under 37 C.F.R. 1.75(a) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each of claims 2, 4, 18, 20, 34, and 36 "ordinary" has no clear meaning.

In claim 8 lines 3 - 4 it is not clear how the subscanning is carried out by the head "approaching and separating" in an axial direction. What exactly is it approaching and separating from.

In each of claims 12, 29, 30, 45, and 46 "the ink tank" lacks proper antecedent basis.

In each of claims 23 and 24 "the drum" and "said drum" lack proper antecedent bases.

In claim 24 the recitation of the image being recorded by causing the recording head to "move in an axial direction of said drum" would appear to contradict the recitation in claim 23 that the image is recorded by rotating the drum.

In each of claims 25 and 41 "the same" has no clear meaning in context.

In claim 28 last line "the ink circulation" lacks proper antecedent basis.

In claim 35 line 6, and throughout the dependent claims, "the printing medium" lacks proper antecedent basis. Note the terminology "printing material" in line 2. It is not clear if the printing medium is the same as, or different from, the printing material. In claim 35 lines 7 and 8 are repetitive.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 33, 35, 37, 41, 43, and 44 are rejected under 35 U.S.C. 102(a) as being anticipated by Okano et al. (WO 99/34982). Okano et al. teach the method and apparatus as recited including the desirability of spacing the ejection channels from 200 to 600  $\mu\text{m}$ . (See page 8 in the specification and column 5 lines 39 - 65 of English equivalent U.S. 6,412,916).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 - 4, 7, 8, 17 - 20, 23, 24, 33 - 36, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou (JP 04-43,046) in view of Kato (JP 10-202,822). Kondou teach the method as recited with exception of using an electrostatic ink jet head. Note that the image resolution in Figure 2b equates to an electrode spacing of 250  $\mu\text{m}$ . Kato teaches the conventionality of using an electrostatic ink jet head to make a lithographic printing plate. It would have been obvious to one of ordinary skill in the art to provide the method of Kondou with an electrostatic ink jet head in view of Kato to achieve the well known benefits of an electrostatic ink jet head, such as using oily ink and reduced clogging. With respect to claims 7, 8, 23, 24, 39, and 40 imaging by rotating the drum and axially moving the ink jet are both widely conventional in the art. With respect to claims 34 and 36 color particles are conventional in the art.

Claims 5, 21, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou and Kato in view of Kojima et al. (JP 04-69,245). Kojima et al. teach the conventionality of fixing the ink image. It would have been obvious to one of ordinary skill in the art to provide the apparatus and method of Kondou, as modified by Kato, with the capability of fixing the ink in view of Kojima et al. so as to provide a more durable image on the plate material.

Claims 6, 22, 25, 26, 38, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou and Kato in view of Masaaki et al. (JP 58-147,373). Masaaki et al. teach the conventionality of a dust removing means (11) and capstan rollers. See Figures 3 - 5

of Masaaki et al. It would have been obvious to one of ordinary skill in the art to provide the apparatus and method of Kondou, as modified by Kato, with dust removing means and capstan rollers in view of Masaaki et al. to provide a clear image on the plate material and keep the plate material flat when imaging.

Claims 9 - 13, 27 - 31, and 43 - 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou and Kato in view of Arway et al. (US 4,555,712). Arway et al. teach the conventionality of an ink supply (22), recovery means (26), temperature control (40), and concentration control (44). It would have been obvious to one of ordinary skill in the art to provide the apparatus and method of Kondou, as modified by Kato, with the ink control means of Arway et al. so as to provide a consistent quality ink to the plate material. It is noted that stirring means are widely conventional in the art to provide a homogenous ink to the recording head.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou and Kato in view of Ikkatai (US 5,363,132). Ikkatai teaches the conventionality of separating an ink jet head when not imaging. See column 2 line 45 - 52 of Ikkatai. It would have been obvious to one of ordinary skill in the art to provide the apparatus of Kondou, as modified by Kato, with a head separating means in view of Ikkatai so as to protect the head when not imaging.

Claims 15, 32, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou and Kato in view of Totsugi (JP 02-95,862). Totsugi teaches the conventionality of cleaning an ink jet head. It would have been obvious to one of ordinary skill in the art to provide

the apparatus of Kondou, as modified by Kato, with a head cleaner in view of Totsugi so as to prevent the head from clogging.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondou and Kato in view of Gasparrini (US 5,322,015). Gasparrini teaches the conventionality of a dust removing means. See the paragraph bridging columns 5 and 6 of Gasparrini. It would have been obvious to one of ordinary skill in the art to provide the apparatus of Kondou, as modified by Kato, with a dust removing means in view of Gasparrini so as to prevent dust from interfering with the printed image.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note column 5 lines 13 - 18 of Mizuyama et al. ('149), column 4 lines 49 - 51 of Nagata et al. ('646), column 1 lines 35 - 52 of Zandian et al. ('183), the paragraph bridging columns 6 and 7 of Vermot-Guad et al. ('496), and the paragraph bridging columns 1 and 2 of Cielo et al. ('502).

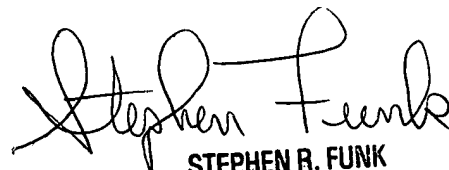
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Funk at telephone number (703) 308-0982. The examiner can normally be reached Monday - Friday, except Wednesdays, from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Hirshfeld, can be reached at (703) 305-6619.

The fax number for *official* papers is (703) 308-7722, 7724. The fax number for those wishing an auto-reply verifying receipt of *official* papers is (703) 872-9318 or for After-Final actions is (703) 872-9319. Upon consulting with the examiner *unofficial* papers only may be faxed directly to the examiner.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at telephone number (703) 308-0956.

Stephen Funk  
February 4, 2003

  
STEPHEN R. FUNK  
PRIMARY EXAMINER